

THE NORTH-WESTERN
MEDICAL AND SURGICAL JOURNAL.
NEW SERIES.

VOL. III.

SEPTEMBER, 1854.

NO. 9

ORIGINAL COMMUNICATIONS.

ART. I.—*An Essay on Milksickness.*—Read before the Appalachian Medical Society, by S. W. Thompson, M. D., Marshall, Ill., May, 31st, 1854.

Gentlemen:—It is with peculiar diffidence that I attempt to lay before you an Essay at all worthy of your consideration, or the subject at the head of this Article, for I am, as every young practitioner must be, deficient in that all-important acquirement to a medical man, experience; but having been appointed one of your essayists, I will not be the first to shrink from any honorable responsibility or duty devolving upon me as a member of the noble profession we are bound to cherish and respect. At the present time it especially behoves each and every one of us to exert ourselves to the utmost for the advancement of ourselves and profession, in order by making both respected, to put down the host of empirics and nostrum venders who are ever hovering round, ready to pounce upon and destroy the poor victim to public credulity.

It is not my intention in this paper, even were I capable of so

doing, to enter into a full and elaborate discussion of the subject of Milksickness, but merely to state the views held by myself and some others as to its cause; and then to express an opinion, or rather make a suggestion as to which species of disease it should be classed with. As regards the latter, I am well aware that I am at present unable to substantiate my theory by proof; for time must elapse, and investigations be entered in to, ere facts can be elicited sufficient to allow us an opportunity of arriving at any certainty regarding the peculiar pathological phenomena to be observed in the disease. Therefore nearly or quite all our arguments and reasoning relative to the cause and character of Milksickness are based upon *mere theory*, and must not be allowed the same weight or influence upon our views, as if they were the result of actual observation or experience.

I shall therefore first briefly mention where milksickness is found or said to be endemic. Upon this point our information is very definite. We see the disease prevailing upon low bottom lands in the vicinity of water courses, or in low marshy prairie or their neighborhood. We occasionally also notice it in comparatively elevated table lands which are thickly covered by a growth of underbrush or young timber. But the places where we find it most frequently and where at the same time it assumes its most severe and grave type, are on the bluffs overhanging creek or river bottoms. These bluffs have been chosen as building spots by the settlers on account of their being above high water mark, and also from an erroneous idea that high lands must be salubrious.

It is true we occasionally see the disease in situations other than those here described, but it is rare and must be looked upon rather as exceptional and sporadic, and not at all militating against the assertion that it usually prevails in and close to malarious localities. Almost all authorities agree upon this point. Dr. Drake would be still more definite, although he does not agree to the hypothesis of its being miasmatic in its origin. He says that the localities giving rise to it are only "the white elm slashes in post oak flats," but this very limited location is no longer tenable, and indeed it is strange that the father of western medicine should ever have taken up with the conviction which he here expresses. It would be

a work of supererogation for me to give a list of districts in this portion of the state, where milksickness prevails ; or of the authorities who have testified to the truth of its most frequent occurrence in such localities as I have described. You are doubtless fully acquainted with both, and I shall now proceed to consider some of the theories which have been advanced as to its cause. There are I believe but four of these which require special notice, viz.: the Animal, Vegetable, Mineral and Malarial.

The advocates of its Animal origin maintain that it is exclusively in man, derived from the use of beef, butter, milk or cheese obtained from an affected beast. In answer to this it is only necessary to prove that it *may* occur without the possibility of any of these articles being the cause. That such can be proven is very evident. A single instance quoted by myself in a paper published in the Western Journal of Medicine and Surgery for June, 1853. is sufficient to settle this point. In this instance every thing belonging to cattle, or obtained directly or indirectly from them, was for a space of about seven years entirely interdicted from being used in the family. But see the result. Was the family exempt from the disease? By no means ; they suffered from it as severely every fall as previously. That bad or unwholesome food of any kind may cause a *manifestation* of the disease I can readily believe. Analogy in other cases would forbid a denial, unless proof were present to give a coloring to my incredulity. But to say that the disease *could not* occur without such food being used ; to assert that such articles as I have above enumerated, are the essential first and last causes of the malady, is what I cannot believe.

The reasons given for a belief in this theory by its supporters, are numerous, and some of the arguments adduced are specious, and bear with them at a cursory glance the appearance of truth.— But upon a closer inspection we find them either incomplete or based upon an a priori mode of reasoning which will not bear analysis. For instance, it is asserted that dogs or other animals, after eating of the carcass of a beast dead of milksickness or trembles, are attacked with the same disease, or one supposed to be so and it probably is. But when we come to examine for ourselves, we find that the number so attacked is but a small ratio of those which

have partaken of the diseased beast, and those attacked are not always the one taking the largest amount of the diseased flesh, but rather such as stay longest in close proximity to the noxious effluvia arising from the carcass; and as the beast usually dies in or close to the locality where the disease is supposed to originate, it is but fair to admit that the dog was subject to the same cause of disease as the cow. And again, if there is any peculiar essential poison in the dead cow, we should reasonably expect to see the usual manifestation of the poison, in those animals partaking thereof, and these effects should be most plainly exhibited in such as had taken the largest amount of matter containing it. It is true that some men, and this fact applies equally to other animals, are more susceptible of a given amount of some agent than others, and this may possibly be the case in the present instance. But Philosophy teaches us to search for no more reasons to explain a phenomenon than are sufficient to account for it, and here I maintain that exposure to the same atmosphere, or if you please, the same cause that gave rise to the disease in the cow, sufficiently explains the phenomenon of the dog being seized with a disease *supposed* to be the same. But a little farther. If the diseased meat, &c, causes it in man and dog, what gives rise to it every fall in the cow? Here we must look again and attempt some other solution of the difficulty, and I would ask, if there is some other efficient cause giving rise to it in the beast, whether this same may not give rise to it in man? The unprejudiced and reasonable mind at once suggests an affirmative answer. Again: It is affirmed that when flesh of a diseased beast is given to dogs not allowed to go to the carcass, it has caused milksickness in them. Such may be the fact, but in the absence of *some* of the facts connected with the case, and moreover in consideration of these phenomena having *apparently* been observed by men incapable of giving them their due weight and value, and of drawing just deductions from such facts as *were* observed, whilst they were liable to be misled by preconceived prejudices, we must be very cautious how far we allow such statements to be received.

Let us now take a brief survey of the claims which the theory of the vegetable origin of the disease presents to our notice.—

This theory has had and still has many advocates, amongst whom is I believe Prof. Dickson of S. Carolina. The late Dr. Drake was also amongst its supporters. There is a peculiarity about this view of the question which is rather singular, considering the certainty which has been expressed, by those writing in favor of this theory, in regard to the special cause. It is this: that there are scarcely any two who agree upon the particular vegetable product, which they would persuade us is the first and only cause of the disease in question. The *Eupatorium Ageratoides*, *Bignona Capreolata*, *Rhus Toxicodendron* and some of the *Fungi* have been cited as specific causes of milksickness. Besides those here enumerated there are a host of others too numerous to mention and unworthy of notice. Dr. Drake was led to believe the *Rhus Toxicodendron* was the noxious vegetable, but when we come to examine the subject we find not a shadow of evidence to substantiate his theory. Indeed the chief ground upon which the vegetable theory is based, are "that each writer has found some *one* of these supposed noxious vegetables in the immediate vicinity of where the disease is supposed to originate, and in some cases they are said to have eaten of them, and been subsequently attacked with the disease." Ergo, the plant gave rise to the malady.

There are one or two facts that I will mention in opposition to the above. In the first place, nature has wisely endowed her creatures with instinct sufficient to lead them to pluck only such food as is suited to their wants, and to shun such as is deleterious. This fact is too well known to need confirmation, and although domesticated animals sometimes partially lose this instinct, yet it could not be the case with cattle, used to getting their entire sustenance during the spring, summer and fall from the unenclosed prairie and wood lands. Secondly, were this theory correct, we should find the disease only in such places as this vegetable, whichever one it may be, and is likewise discoverable. But is this the case? By no means, for when we find some of them to exist, there are not others. This question might forever be set at rest by separating a number of cattle and feeding them on the various vegetables supposed to be hurtful, at the same time they are free from any of the other supposed causes of the disease. I cannot

pass this part of the subject over without a cursory notice of a new *causus morbi* which has lately been discovered, or at least said to have been so; and coming as it does from a high source, it might from that cause alone have more influence than it deserves. The substance to which I allude is a kind of fungus similar to the *secale cornutum*, and its effects are claimed to have been discovered by Prof. Slack of the Cincinnati College of Medicine and Surgery. The claims of this article to the *enviable notoriety* of being the cause of so much ill to nature's animated creation, are warmly advocated by this gentleman in a paper published in the *Western Lancet* for March, 1854. This paper is headed '*Ergo-deleteria*,' and is plentifully interspersed with quotations and italicising. The learned professor speaks in term of derision of the various theories hitherto advanced, and then proceeds to declare in a very positive manner, the certainties which accompany his solution of the much vexed question of the cause of milksickness.—Speaking of all previous theories he says "to the writer of the present Essay, all these particulars are but *guesses*, most of them fanciful and fall quite short of the *truth*." And what after all are his reasons for presuming he has discovered the true cause, and thus condemning all previous productions "as mere guesses and but fanciful?" Simply these, if grounds indeed they are. That in all the Graminacæ or grass tribes, the place of the seeds is sometimes occupied by a *morbid growth*. That this abnormal production is similar in its nature to the ergot of rye, which from ample experience has been proven capable of generating disease in both man and beast. He then goes on to state that "early in November of 1839 or '40, by request I visited a very respectable family. I found them all laid down with *milksickness*. The house was a hospital—all were sick. The lady was retching and vomiting in a manner *unusual to me*. She died during the night after.' He then gives a description of the land and what was found there. "The family lived in a fertile place, one and a half miles from Memphis, Tenn., on the east bank of Wolf river. The whole place except a small strip of land, was frequently overflowed by water. In this particular case I looked around carefully for a cause of the very distressing malady, and was satisfied it resulted from

something produced in the vigorous grasses of these *low lands*, since which botanical facts confirmed my impressions, and led to the sentiments above. There is an inconsistency in the professor's descriptions, which I could wish he had avoided. We might suppose this was the first attack of the kind he had ever seen, and not knowing what else to call it, gave it the accommodating name of *milksickness*, for he says he found the woman "retching and vomiting in a way unusual to him." If he was acquainted with the disease either by experience or otherwise, this could not have been the case, for when a physician has seen one or two patients vomiting in this complaint, the scene is not easily effaced from his memory, and this symptom is usually particularly and minutely described by those who have written upon the disease. But now the woman was dead, Prof. Slack with praiseworthy zeal seeks for the cause of disease, but at the time discovers nothing, if we except some rank vegetation, consisting mostly of grasses in the overflowed lands. *There may have been the blight* which he supposes to be the noxious article, yet he does not say it was found at this time. However, after "thirteen years" have passed he discovers that the "*Ergodeleteria*" was there.

This is a quasi medical philosophy which I neither know, nor wish to know anything of. Could not the occurrence of the disease been more rationally accounted for by supposing malaria to have been the cause. Here were all the elements necessary to its production, in their most concentrated form. Such of the symptoms as are described were certainly more like those present in some diseases acknowledged to be miasmatic in their origin, than those presented by poisoning from the *secale cornutum*. But this explanation would not have given Prof. Slack the opportunity and eclat of promulgating a new theory, no matter how absurd soever it might be. But after all, the gentleman is no nearer the solution of the difficulty than at first, for his theory would only account for its occurrence in the beast, and unless we suppose that this "*Ergodeleteria*" remains in a sufficiently concentrated form to poison the meat to an extent fatal to all partaking thereof, and also the butter and milk during life, we have no solution at all. The theory of its mineral origin, with such a supposition as this to assist it would be far more worthy of credence.

In considering this latter theory of the origin of milksickness I shall be as brief as possible. It is supposed that in the fall of the year, when the waters are low, there is some noxious mineral suspended in them, and the cattle when they go to drink at the creeks and pools, receive this poison with the water and thus contract the disease. There are several mineral productions which have been supposed to exert this baneful influence, but what the grounds for a belief in this view of its etiology are, I cannot conceive, nor will this theory bear the test of investigation any better than those we have just considered. A remark which I previously made in reference to its vegetable origin, applies equally against the theory now under consideration; for whatever mineral we attribute the disease to, such should be found constantly present in the waters which are said to give rise to the disease, and when such is not the case we should not expect to find the effects of a poison which does not exist. Dr. Drake in his memoir on milksickness, denies there having been any one mineral product constantly found in the water of the neighborhoods supposed to give rise to this malady. There is a slightly modified view of this question taken by some of the advocates for its mineral etiology. This is, that the poisonous article, whatever it is, comes up in the form of vapor, and is deposited upon the vegetation, and thus taken by the cow. But this view might be made to assist any other theory as well as this, and experiments so far, have not proved any thing capable of generating this disease, to be so deposited.

I have now briefly considered *three* of the *four* most commonly received opinions of the etiology of milksickness. I shall therefore now proceed to examine the remaining *one*, which I believe is the most rational, philosophical, and in best accordance with our actual information relative to the disease.

The best way to examine this theory, will be first to give some of the reasons assigned for its support, and then examine these reasons to see whether they are valid and apparently substantiated by facts. To proceed then; it is maintained first, that milksickness usually if not invariably occurs in malarious localities, or such as are subject to miasmatic influences.

Secondly, that the disease in many instances at least, can be pro-

ven to have occurred without any of the causes assigned by the advocates of other theories being present, and therefore in want of better evidence we are justified in attributing it to malaria.

Thirdly, its resemblance to certain forms of disease which are almost universally conceded to be caused by malarial or miasmatic influences.

Such are some of the reasons assigned by the advocates of this theory for a belief in its correctness. I will now proceed to consider these reasons *seriatim*.

First, That milksickness usually occurs in districts malarious in their character, is as I have before observed, almost universally admitted. Its most frequent habitation is in places where Remittent, Intermittent and Congestive fevers of various grades are most frequently and constantly seen. That we do occasionally see the disease in situations where this cause does not appear very manifest, cannot be denied, but then we do not know to what extent a patient attacked with milksickness, may have been exposed to malarial influences in another place, perhaps days before and entirely forgotten by himself. Further; we know that currents of air or other causes sometimes extend the influence of miasmatic or malarial vapors to an indefinite extent, and in such cases, I have little doubt, that could the chemist be upon the spot at the time, and were he possessed of the means of analysis sufficiently nice, the presence of the malarial vapor could be demonstrated.

Secondly, of the occurrence of the disease independent of the so called causes assigned by the supporters of other theories. This can be proven beyond a doubt. Families have been attacked, who have most rigidly abstained from the use of every thing which could give rise to the disease, through the medium of the beast either dead or alive; as see the case referred to in the previous part of this paper. In this instance the same water was used all the year through, and yet the disease never showed itself until the latter part of summer or fall when the decay of vegetation commenced. This family however lived in the immediate vicinity of a swamp, at all times wet, and sometimes overflowed to a depth of several feet. There was likewise a flat swampy piece of prairie, extending up close to the house. This prairie was always covered with a luxu-

riant growth of vegetation, mostly of a succulent character. At the suggestion of the family physician, this low piece of ground was cleared and drained, thus getting rid of a great portion of the superabundant moisture, and exposing the soil to the influence of the sun's rays. What was the consequence? The family were afterwards, almost exempt from the disease, and only suffered when the swamps adjoining was repeatedly overflowed during the summer.

We frequently see instances of a family remaining entirely exempt, until some low rich piece of ground, upon which a thick layer of dead leaves and grass has remained undisturbed for years, is broken up, and the only partially decomposed vegetation becoming exposed, a fresh decomposition takes place and the family is then troubled with milksickness for several years, or until the previous accumulation of dead leaves &c., are entirely metamorphosed into productive and innoxious soil.

Again: cattle have been attacked by the disease when grazing in a low piece of meadow land, where they had no chance of getting water other than from the same well that the family used from; and why should a poisonous vegetable now spring up and be eaten by the beast, when it had never made its appearance previously? In these as indeed in other cases, the family as well as the beast remained entirely exempt until fall or early winter, and in many instances where the *family lived* upon an elevated and salubrious situation, *they* remained free of the disease for the entire year.

Thirdly, its resemblance to certain forms of disease, generally acknowledged to be miasmatic in their origin! This is a point which so far as I am aware, has never before been advanced in an essay on milksickness, but I am firmly convinced that the resemblance does actually exist, that I have not based my belief upon unreasonable premises.

It is generally conceded, that in diseases spoken of as *congestive* in their character, the first morbid impression is received upon the *nervous system*, speaking of this in its most comprehensive signification. That is to say, that the morbid cause, be it what it may, first exerts itself upon the nervous filaments. For instance, one of the first steps in an inflammation, is congestion. But prior to

the existence of the engorged condition of the vessels, essential to this state, there must be, and undoubtedly is an impression made upon the nervous filaments supplying the parts to which these vessels are distributed, and the vessels themselves; this impression results first, in a loss of innervation, or in other words a loss by the nerves of the "*vis conservatrix natura*" by which she throws off any temporary disposition to diseased, or abnormal action. In congestive fever we believe the peculiar pathological phenomenon, whence the disease derives its name, is induced by an impression made upon the nervous system, resulting in a want of power or loss of innervation, which in its turn causes a condition of partial stagnation or congestion upon the internal organs. We know that a deficient supply of nervous influence causes coldness or a loss of the normal temperature of the parts where such deficiency exists, as in paralysis. So in congestive fever; the first impression being made directly or indirectly upon the nervous centres, the afflux of blood is towards the internal organs, because the distal extremities of the nerves are the ones upon which falls the weight of the morbid cause, their healthy action depending upon an integrity of the central organs whence they spring. The congestion thus resulting may in its turn terminate in local inflammation, such of course occurring in the weakest organs, and the ones most prone to take on this state.*

It will be inferred from the preceding remarks that it is to the congestive variety of disease that milksickness belongs; or rather that it is but a variety of congestive fever.

Let us now examine the symptoms, and see if they correspond with, or can be accounted for by this theory, and also whether they are, or are not analogous to those present in the varieties of congestive disease to which I have more special reference.

First then of the *pulse*. This find to be weak, but usually not much increased or reduced in frequency, or irregular in its beats.— It is rather what would be called a pulse of depression, or one which from *sympathy* with the reduced powers of the system generally, lacked its accustomed vigor. The heart however appears to beat with great violence, as if clogged and obstructed in its ac-

* "See Furdgee on fever."

tion, but in spite of its apparent strength it does not propel the vital fluid with its accustomed force. It is the beat of weakness—that of the organ attempting beyond its power to throw off the accumulation of blood which obstructs the normal action, and the discharge of its accustomed functions. We find the skin cool, or cold, without the patient complaining of such being the case. This we should naturally expect, if there is, as I suppose, a lowered condition of the vital functions, owing to deficient innervation.

The capillary vessels of the skin, having a deficient supply of nervous influence, are, from this cause, and the mechanical contraction of their parietes, resulting from reduced temperature following such deficiency, likewise deficient in their accustomed supply of blood. Restlessness and trembling are also very constant symptoms. These we find present in almost any disease in which the powers of life are depressed, or reduced to an inordinate extent. We often see them when a person is weakened by the loss of blood or great fatigue. They are but evidences of reduced power of the whole economy.

Again—the obstinate constipation of the bowels is not, in my opinion, the result of any structural derangement, but rather of a deficiency in the accustomed peristaltic and contractile efforts of the intestines. I am by no means satisfied that it is not a condition similar, and dependent upon a somewhat similar cause as is this symptom in colica pictonum; and, so far as we have pathological appearances to guide us, we are justified in the opinion. In the few *post mortems* which have been made, and of which we have reliable accounts, there have been no signs of actual inflammation in the intestines, although there is said to have been some slight abnormal redness, dependent, perhaps, upon retention of the hardened feces within the delicate lining of the bowels, or else caused by the stimulating and irritating medicines so commonly administered, for we are told that this slight redness is chiefly limited to the upper portion of the alimentary canal, although not entirely. Nausea and vomiting are also very constantly present; yet I see no reason why we may not explain their occurrence in a manner entirely consistent with my theory of the

disease. What is more distressing than the nausea and vomiting sometimes attending pregnancy, or in some varieties of dyspepsia? Yet we find in these cases no organic change. They are the result of functional derangement merely. Yet, in the latter affection, the sense of gnawing and burning at the epigastrium is almost, or quite equal to the same symptoms in milksickness—indeed the appearances after death presented by the stomach are not dissimilar. In milksickness, it is true, this organ appears more red, either the result of *recent* inflammation or excessive congestion. It is not unlikely that in protracted cases, which prove fatal, the constant and severe retching and straining may have a tendency to cause the existing congestion to progress to a state of inflammation: but we must recollect how apt the inexperienced student in pathology is to mistake mere congestion for inflammation.

It may be objected that the term “loss of innervation” is vague, and in itself without meaning. This is true; but, in the present state of our science, we are obliged oftentimes to use terms the strict interpretation of which we are not acquainted with; but they, nevertheless, serve to convey an idea of the condition of disease, the cause and complication of which we do not rightly understand.

I then believe that there is no PECULIAR disease known as milksickness, but that the disease so called is neither more nor less than a variety of our congestive fever, of course, modified by such circumstances as constitutional or temporary peculiarities of the patient; difference in the nature or virulence of the miasmatic or malarial poison, and also somewhat by the season at which the disease usually presents itself. I have previously expressed the opinion that the primary impression is made upon the nervous system. Whether it is upon the animal or organic system chiefly, I cannot say; but, from many circumstances attending the disease, I think it probable the latter is the one chiefly implicated. For instance, the secretory and circulatory systems each show great evidences of derangement. The natural temperature of the body is reduced; the functional derangement of the stomach and bowels without sufficient organic lesion to account for it, would all

lead us to adopt this conclusion, as these various processes and organs are more particularly under the control of the great sympathetic system; but, from the close sympathy and connexion existing between the two, it is not probable that either could be greatly deranged, and the other remain intact.

The first impression of the disease *may be* upon the blood, through the medium of the respiratory apparatus; but of this we have no data from which to judge, and all our opinions upon this point are mere hypotheses.

We here find, then, that the symptoms of congestive fever and milksickness are not unlike; that in many respects they are actually identical. The particular grade of congestive attack to which I consider it to bear the closest resemblance is, a combination of the algid and gastro-enteric varieties. Although the symptoms are not precisely similar to either one variety, yet in cases where we find an union or blending of these two varieties, we not unfrequently see a combination of symptoms almost, if not quite, identical with those here spoken of. That such a blending may take place is well known. Bartlett, at the end of his description of the symptoms of the several varieties of congestive fever, expressly says, "that two or more of these varieties may be united—sometimes the symptoms of one predominating, and sometimes those of another."

I am inclined to believe we are all a little too careless in our diagnosis of these attacks. If we see a well-marked case of congestive fever, we give it the proper name; but when we come to an array of symptoms similar to those seen in the disease called milksickness, we apply to them the popular name, because we know that these symptoms are present in the attack so called, and we fail to exert our analytical and reasoning faculties in endeavoring to class the disease in its proper place, but remain satisfied with telling ourselves "it is a case of milksickness;" and, this first wrong step being made, we are apt to commit another by treating for the *name*, and not for the *symptoms*. I am in hopes, if we all take proper pains, new and interesting discoveries will be made, which may enable us to see and treat this much feared disease, this bugbear of Western emigrants, with the same cer-

tainty and rationality as many of the best established in our nosological list.

I might, perhaps, have carried the analogy between milksickness and our common congestive attacks to a greater length with some benefit, but I conceive it to be unnecessary. The obstinate constipation is not usually present in the gastro-enteric varieties of congestive fever; but it is, to a greater or less extent, in the algid; and here I would remark, that when this symptom is overcome in milksickness, we not unfrequently see it followed by a transient diarrhoea, as also by some slight febrile movement.

Before closing, I must say a few words relative to the treatment of milksickness; and in this, I doubt not, I shall differ from most of you here present; but I cannot proceed without remarking how very desirable it would be to have some minute accounts of the appearances after death presented by the different organs of the body. Our information upon this point is most meagre and unsatisfactory. We know very little of the actual condition of the stomach and intestinal canal—nothing of the cerebro-spinal or great sympathetic systems of nerves. The latter remark applies equally to our knowledge of the lungs, liver, heart, &c. With such slender foundation, then, for our opinions of its nature, it is not unnatural we should fall into many erroneous hypotheses regarding its actual character and treatment. I may have fallen into some of these; but, if I have, I will not be the last to discard my present views for such as are better supported.

You will, no doubt, expect, from the opinions I have expressed of the pathology of milksickness, that I should treat it in accordance with such views; nor will you be mistaken. But, from the peculiarly irritable condition of the stomach, we are debarred using remedies of an irritating or nauseous character until such irritability is allayed, and even then to any great extent, for fear of causing a return of the same.

The treatment I have found most successful consists, first, in the administration of

Hydrarg. sub. chlor. gr.ij. vel.ijj.

Soda bi carb. gr.v.

Repeated every onc, two or three hours.

The soda bi carbon. serves to neutralize the excess of acid in the stomach, and the combination is almost invariably retained, and rarely fails in producing the effect desired. If this should not succeed, we may give the aqua camphora or small doses of morphia, or a weak solution of kreosote in water. I once tried this latter remedy in a case where all others had failed, and it answered the purpose intended in a most satisfactory manner.

Having now somewhat quieted the stomach, I give a brisk cathartic. This is beneficial in two ways: first, it stimulates the intestinal canal to its accustomed functions; and secondly, it is absolutely essential to evacuate the bowels of all offensive matters, or else the retching and vomiting are sure to return. I usually prefer the infusion of senna, or the pulv. jalapæ comp., because they are generally retained by the patient, and act in an efficient manner; but others may be used to suit the preferences of the physician, or to meet the exigencies of the case.

The excretory processes of the body must be renewed; and in no way can we do this with the same certainty as by evacuating the alimentary canal. If the remedies previously advised do not succeed, we have no time to lose.

The croton tigllii may be resorted to now with benefit, and its administration persevered in till an evacuation is procured, or the stomach becomes irritated by it. As soon as I have procured a full discharge from the bowels—and this we usually find to be of a tarry consistence, and very fetid—I begin at once the administration of quinine in some form. This I would have done previously, but, owing to the extreme gastric irritation, kept up, perhaps, by the retention of excrementitious matters in the intestinal tube, a remedy of so nauseous a character could not be retained.

The administration of this remedy is often followed by a tranquil sleep, and a warm perspiration breaks out all over the body. I continue the use of quinine for several days, or until the patient is convalescent. The tinct. ferri chlor., or some other preparation of iron, may now be substituted. You will at once perceive I have said nothing of general or local blood-letting or counter-irritants. The first I consider entirely inadmissible. The second

in the shape of cups or leeches, if the latter can be had, to the epigastrium, I conceive *might* be beneficial, although I prefer counter-irritation by blisters or sinapisms, which I have usually found to answer every indication to be expected from their use. Sinapisms along the spine are also of benefit.

The general administration of irritating stimulants, such as brandy and whisky, &c., I do not approve of, as they can, in the inordinate quantities usually allowed, but serve to increase the gastric irritation already existing. Under certain conditions, however, weak brandy toddy or small quantities of wine are useful. I had forgotten to state that when I give cal. and sod. carb. the first dose or two is followed by a powder of cal. gr. x., chlor. sodium gr. x. This usually greatly assists the purgative subsequently administered in its desired effect.

I should think that the ferri et quinia citras would be a most excellent substitute for the quinine alone, being less bulky and nauseous, at the same time it combines the tonic and antiperiodic properties of both quinine and iron. I have never been able to procure it, but shall endeavor to do so, in order to test its efficacy in the disease now under consideration.

ART II.—*Uterine Hydatids.* By DELOS W. YOUNG, M.D.,
Aurora, Illinois.

OCTOBER 25th, 1853, I was called to see Mrs. F. aged 18 years. Has been married three months, and is laboring under an attack of leucorrhœa. She gave me the following history of her case. She first began to menstruate at the age of 13, when she was advised by her sister and other *female* friends to expose herself to cold and wet, in order to *harden her system*, assuring her that she could do so with impunity, and bear her future *turns* much better. Accordingly, she went barefooted, and stood in a tub of cold water. She took cold; which produced suppression of the menses, followed by fever of several days duration; since which time she has suffered from periodical attacks of leucorrhœa, but has never menstruated regularly.

I now found her anemic, with feeble circulation; bowels have been constipated for the past year; complaining of headache and general prostration. Leucorrhœa profuse and somewhat painful. Ordered cathartic mixture (composed of aloes, spts. *lavendula* comp., soda bicar. and water), astringent vaginal injections, wine and iron, with nutritious diet.

November 14.—I find my patient's general health much improved, bowels more regular. Advised continuance of tonics.

March 22d, 1854.—I was called to see Mrs. F., and found her with profuse uterine hemorrhage; abdomen slightly bloated, but yielded readily to treatment with ergot and cold applications to the abdomen.

April 8.—Had another similar attack, which was relieved by like treatment.

May 30.—Was called to see patient; had some hemorrhage; bowels bloated, and complaining of pains in the hypogastric region. Supposes herself pregnant, but utterly refuses to submit to a vaginal examination. Ordered rest in a recumbent posture, and cold applications to the abdomen.

June 18.—Had another attack of hemorrhage, and abdomen is more distended. Still refuses to submit to a vaginal examination. Treatment as before.

June 28.—Is attacked as before, with fulness of abdomen increasing.

July 13, 5 o'clock, A.M.—I was called in haste; found patient with a slight attack of hemorrhage; much agitated; suffering severe pain in the uterine region; abdomen largely distended. Has not slept during the previous night. Refuses to be examined. Prescribed anodyne, with cold applications to the abdomen and vulva, and perfect quiet.

10 o'clock, A.M.—Patient attacked suddenly with profuse hemorrhage. I being absent, my partner, Doctor Abner Hard, visited the patient, and found her cold, faint, and almost pulseless. Made vaginal examination; found os tincæ slightly dilated, so as only to admit the index finger. Could touch a soft, pulpy mass, supposed to be clots of blood, but could feel nothing like a foetus. Owing to profusion of hemorrhage, and prostration of

the patient, he prescribed brandy, camphor and ergot, introduced ice into the vagina, and applied warmth to the extremities; which, with kneading of the bowels, secured contraction of the uterus, and expelled some clots of blood.

Hemorrhage ceased, pulse began to improve. Made another examination; found os tinæ as before. Felt a substance resembling placenta, but could detect nothing like a fœtus. Continued stimulants, and despatched a messenger for me. I arrived at 11½ A.M.; found patient as above described.

Advised continuance of brandy, with addition of chloroform, and repetition of ergot, as there was a little hemorrhage.

12½ P.M.—Patient has some uterine pains, with more hemorrhage. Made examination and removed small pieces of a substance resembling placenta.

1 o'clock P.M.—We found the os tinæ sufficiently dilated to admit two fingers, and removed a substance found to be uterine hydatids. Contraction continued regularly, until we succeeded in removing about five quarts of hydatids, resembling in form clusters of grapes, a large quantity of which we have preserved in alcohol.

After treatment, applied bandage round the body; ordered cold to the vulva and abdomen, with perfect quiet in the recumbent posture.

July 14.—9 o'clock A.M.—Patient rested well; no hemorrhage, and convalesced gradually; up to this time is doing well.

Query.—How long have the hydatids been growing? Was their growth the cause of leucorrhœa, and consequent ill health? or was the leucorrhœa and copulation the cause of their growth?

Editors, please give your opinion.

ART. III.—*Case of Complete Occlusion of the Os Uteri.*

By B. N. BOND, M.D.

Feb. 1, 1853.—I was called to Mrs. H. at 8. P.M., in labor with her first child. She was an Irish woman, stout and large, aged 24 years; had strong pains since 4 P.M. The pains were urgent and powerful, forcing the head, covered by the uterus, low

down into the vagina. No os uteri could be felt; but about the centre of the tumor, and protruding from the vagina, could be felt a firm, hard point, with several ridges diverging from it. On inquiry I found that, in the August preceding she had a severe attack of remittent fever, followed by a *purulent, offensive* discharge from the vagina for several weeks after convalescence. I at once concluded this to be a well-marked case of total occlusion, and requested consultation, which was sent for. I gave her an opiate, which put a stop to the pains till 4, A. M., when they returned with increased severity. Believing that, if left alone, rupture would take place before Dr. Jones could arrive, I at once proceeded to make an incision transversely across the hard point, about one and a-half or two inches in length. This dilated, and in ten minutes she was safely delivered of a fine healthy daughter. Recovery was slow, on account of an offensive discharge from the vagina; but she finally recovered perfectly, and is now, July 30th, again pregnant, with every prospect of a happy termination. Believing that but few cases of *total* occlusion are met in practice, I have given a detail of all the facts of this, to me, new and interesting case.

ARTICLE IV.—*Address of J. W. SPAULDING, M. D., before the Knox Co. Medical Society, July, 1st 1854.*

Gentlemen of the Knox Co. Med. Society.—In laying down the honors and retiring from the office of presiding over you for the last year, conferred upon me by your confidence and partiality, I feel it due to you, to return you my sincere thanks, and to establish a precedent which I hope will be followed by my successors, to the benefit of Medical science, and the establishment of professional union and courtesy. Gentlemen, we find a maxim laid down in a good book, upon which we may well ponder, it is this. "A house divided against itself cannot stand." We have adopted a code of ethics which if duly observed will carry us clear of all professional jealousy, bickering and strife, which sometimes unfortunately occurs among professional brethren, to their own discredit, and compromises the influence and interests of the profession.—The science of medicine is a noble science, and if rightly appreci-

voted and understood by its votaries, will make them kind, generous and humane. It is a progressive science, and he who wishes to be the greatest benefactor to the human family, in arresting disease and turning aside her shafts, must drink *deep* and *often* at her fountains. And gentlemen, let me advise you to strive and contend, not for practice and dimes, but for knowledge and wisdom. Let us for a moment compare the science of medicine with some of the special systems of empiricism and charlatanism in our land. Homœopathy, claims to be an exact science, and Hanne-mann, like a philosopher of old, was enabled to exclaim *Eureka*. There are but two points in the so called science viz.: "Similia, Similibus Curanter" or, like cures like, and infinitesimal doses. We will look at the first point and see whether it holds good as a general law. Hanne-mann says, that he utterly failed to cure disease, whenever he gave medicine in any considerable quantity, furthermore that it greatly aggravated the disease, and he only succeeded when he used the minutest doses, the decillionth part of a grain or the thirtieth dilution. Now a person with one spark of common sense is enabled to see, that when a remedy in an inflammation is withheld, that is calculated to produce that state of the system, and a dose occasionally given of the thirtieth attenuation or dilution, which is inert, that the case is left to the efforts of nature, good nursing, and restricted diet to get well. There is a vast difference between recoveries and cures, that is sometimes not appreciated, and when nature restores one case that is doubtful or considered so under an empiric it is considered marvelous, and heralded over the land, whereas the regular practice may cure forty desperate cases, and it is no more than they expect of us. These things, after all, satisfy me that the community consider it a wonderful escape, and we think the Homœopathists are confuted by their own argument.

[illegible]

The Homœopathic list of drugs, includes a number of medicines that possess (according to Homœopathy) the power of producing various moral and religious states and symptoms. Sulphur produces in a healthy person, the feeling of "despair of eternal salvation." A dose of pulsatilla, produces, "despair of eternal happiness with continued praying, hymns, and devout aspect." Veratrum produces "extraordinary taciturnity, with oaths on the slightest provocation and raving about religious matters." It is the doctrine of Hahnemann that the most of chronic diseases are produced by psora or itch, and Dr. Muir has discovered a new and grand specific, which consists of the human louse, or "*pediculus capitis*" Dr. Muir found that doses of louse tea were capable of creating 283 different symptoms to which he devotes twelve pages to show it to be a marvelous specific for the itch. Dr. Herring recommends swallowing "bugs in the thirtieth dilution" for curing the inflammation arising from bug bites. You will find contrasted with the above in the regular science, its votaries investigating in every department, and whenever a substance is found, and proved by experiment and investigation, calculated to alleviate human suffering and misery, it is received as a boon to the race, whether coming from the animal, vegetable or mineral kingdom, you also find powerful minds investigating every department of the science and bringing in their knowledge to the general stock. But, gentlemen there are other empirics in our land, to wit: Hydropathy and Botanic. Cold water, or rather water at various temperature is a therapeutic agent of great value, and has been in the hand of the profession for centuries, however, the idea embraced by some that water is a specific for all the ill that flesh is heir to, to the exclusion of all else that a bountiful providence has provided, is evidence of an ignorant and contracted mind, and as well might the mariner when he leaves port place the bow of his ship towards the desired haven, lash the helm, throw overboard the charts, compass and quadrant, and notwithstanding the variable winds and currents, expect to reach his port in safety, without being driven from his direct course, or buffeted by the winds and waves. The botanic comes next and is the most contemptible of all. "Thompson and all his crew," they deal in vegetable remedies

because they are *harmless* and exclude the *poison minerals*, and endeavor by pampering the prejudices of the credulous to succeed, not by science, learning and skill, but by loud boastings and pretensions.

There are many honest persons that have been made to believe that botanical remedies are harmless, and yet effectual; also, that there is some secret that the regular profession have not discovered; they, honest souls, don't know that one drop of hydrocyanic acid—a vegetable acid—will produce death in an adult in two minutes, and that strychnia will produce death in ten minutes; and if they could read the journals, and see the number of deaths from Lobelia poisoning, they might think it required some skill and judgment in the dispensation of botanical remedies. Another idea—I have frequently seen pasted hand-bills by the above gentry, making boastful pretensions, and repudiating all “mineral remedies,” and covertly make use of more mercury than any regular practitioner; and if ptyalism followed, it was the old calomel they were expelling from the system. But many, from inattention, or want of comprehension, fail to see that in medicine knowledge is power, and ask for the practical evidence of our ability to treat disease. And here we shall be able to make our strongest claim upon public confidence, and our most invulnerable defence against the attacks of our enemies; but in casting around for a point at which to commence, so innumerable are the triumphs of our art, that their very abundance creates embarrassment, as neither mountain nor ocean impose a successful barrier to our onward progress, so neither the rapidly ebbing currents of life through the several arteries, nor the terrific throes of obstructed labor defy our skill, for we quietly pass a ligature around the vessel in one case, and, by the application of a safe and efficient instrument, give prompt relief to almost superhuman suffering, and save two lives, in the other; we cut short, in a few days, the miasmatic fevers of the great West, which, without our aid, prove fatal, or run a course of weeks, or even months. By vaccination we guard the community from a dangerous and loathsome disease.

But, notwithstanding our claims to the confidence of the com-

munity, there is a class who are excessively credulous, and who are on the look-out for some new way, and as soon as a new system is promulgated, follow immediately after, shouting praises to the progressive spirit of the age. They will also take great pains to patronise and recommend a boastful pretender, if he gives them a history of some marvelous cures that he has performed after all the doctors had failed.

The above class it is useless to try to convert to sound principles; it would be like casting pearls before swine, and we had better let them alone; but, notwithstanding all the detraction and abuse, the true science will prevail. But I must refrain from pursuing the subject further, and close by hoping that this society will be united in close ties of courtesy and kindness, and continue the search after truth, until we shall become a beacon that will be seen and known afar.

Again, gentlemen, accept my thanks for your kindness and confidence, and rely on my best endeavors in co-operating with you to sustain the interest and honor of the Knox County Medical Society.

SELECTIONS.

From the New Orleans Medical News.

Observations upon Primary and Secondary Amputation. By
Prof. W. STONE, M.D., of New Orleans.

THE principle of immediate amputation, although beyond all doubt correct, has caused the loss of countless limbs unnecessarily, and, I believe, of as many lives as it has saved. The error, evidently, is from over-estimating the security afforded by primary over secondary amputation. The first duty of the surgeon certainly is to secure, if possible, the life of his patient; and the second, to preserve as much of his person in as perfect a manner as possible. In the anxiety to fulfil the first duty, by over-estimating the security which amputation affords, limbs are often sacrificed that are curable, and by disregarding the proper time for amputation, a life may be lost that would have been safe without an operation. In severe injuries of the extremities, if fatal, death is produced either by the concussion or subsequent pain and suppuration which exhausts the patient; or it may occasionally be from tetans or gangrene. Against the first cause of death amputation affords no security—on the contrary, it favors it. The question of amputation before reaction, I believe, is settled by every American surgeon of experience in the negative. This subject was sharply discussed in England on the occasion of the death of the celebrated statesman, Huskisson, who had both legs or thighs crushed on the Liverpool and Manchester Railroad. The Liverpool surgeons attempted to bring on reaction, but every means failed; the concussion had thrown him into a fatal collapse. The London surgeons took the matter up, blamed the Liverpool surgeons, and urged that immediate amputation should have been resorted to, and talked nonsensically of the stimulus of the knife. When one hears such reasoning, he feels the truth of the remark made by some one in the last century, that surgeons were bad pathologists, and worse physiologists.

In severe injuries, where the patient is thrown into collapse, and amputation is necessary or unavoidable, if the case is critical, it is a nice point to decide when, exactly, it can be performed

with the most safety. If the patient were in great agony, and amputation could relieve it, there could be no doubt of the propriety of amputating at once, no matter what the state of pulse might be; but this is not the case; the shock has been received, the mischief has been done, the parts are in a measure paralyzed, and no very severe pain takes place until reaction. The question in such cases is, whether the injured limb is a greater source of pain than the stump would be after amputation; and considerable allowance should be made for the shock of the operation. The discovery of chloroform enables us, in a great measure, to avoid the shock of the stimulus of the knife, but not entirely. My experience is, that when amputation is unavoidable, it is best to do it as soon as reaction has fairly commenced, while the patient is under the influence of the first shock of the injury, the pulse flickering, etc. Any disturbance of the system, pain, or loss of blood, might cause a fatal collapse in a case that would be perfectly safe if managed with tact and judgment. By reaction I do not mean a full resistant pulse. The nervous system receives the shock, and is the first to react, as shown by the increased sensibility and improved capillary circulation, before any perceptible improvement in the pulse is observed. This, however, soon follows, and the pulse becomes more steady. When the system is suffering from a severe injury, it is often the case that stimulants do not act as such when put upon the stomach. In extreme cases, when the patient is in danger of collapse, it is evident to me that the stomach does not absorb, but is nauseated, and all the pressing effects of nausea are produced. The rectum can scarcely be said to sympathize with the system in general, and always preserves an active absorbing surface. Stimulants given by injection produce ready effect; and I always use my stimulants in this way where the patient is in danger, even when he is perfectly able to swallow, for they are much more prompt and effective. If too long a time elapses after an injury before amputation, the sensibility of the limb, which was at first paralyzed, becomes highly exalted; and although we can, by the use of chloroform, prevent the shock from the operation, we have fresh wounds in parts in a morbid state; the stump is much more painful, and, as a general rule, does not do as well as when the operation is performed earlier. By the above I mean a state of the parts before any decided inflammatory action has taken place, and my firm conviction is, that where no large joints are involved, or parts injured that will give extreme pain to the patient, he will have a better chance for his life if we give him a chance for his limb also, even if we have to resort to secondary amputation—I mean if the most favorable period for operating has passed.

From the *Lancet*.

Epidemiological Society—On the use of Vegetable and Mineral Acids in the Treatment, Prophylactic and Remedial, of epidemic disorders of the Bowels. By J. H. TUCKER, Esq.

The author commenced by alluding to the remarkable, but well-established fact, that in 1849 the cider districts of Herefordshire, Somersetshire, and part of Devonshire, were to a great extent exempt from the epidemic ravages of cholera, while the disease was raging around. Upon further inquiry it was ascertained that this exemption was confined a good deal to those individuals who drank cider as a common beverage, and that those who partook of malt liquor suffered. He also remarked that in some parts of France and in Normandy, more particularly where cider is the common beverage, cholera is seldom known to exist; and further, that Switzerland was reported to have been free from its visitation.

Having adduced these and other facts in proof of the prophylactic power of cider, the author expressed his opinion that other vegetable acids would be found of service, such as lemon or orange-juice, and sour wines made from grapes, or even from gooseberries. And as it would be found impossible to supply the whole of London with a sufficient quantity of pure cider, Mr. Tucker suggested that *vinegar* might be found a useful substitute in case of another outbreak of cholera, provided that it could be obtained in a state of purity. In confirmation of his view of the sanative and medicinal virtues of vinegar, the author quoted Hippocrates, who (*de natura meliebr.*) "employed white vinegar medicinally"—Plutarch and Livy, who refer to the use of vinegar by Hannibal, in his passage over the Alps, when he is said to have "softened the rocks with fire and vinegar, an operation which the author facetiously regarded as rather metaphorical than chemical, as the vinegar, swallowed by the troops probably sustained their strength, and thus in effect softened the asperities of their rough way. The author also quoted from Roman history the story that "Scipio Africanus is said to have gained a great battle with a few skins of vinegar," the troops refusing to march until the general had obtained a supply. Cæsar was also reported to mention in his Commentaries the supply of vinegar to the troops; and Mr. Tucker remarked that the drink of the Romans in all their campaigns was vinegar and water, and, sustained by that beverage, they conquered the world. Modern authors (Sir John Pringle, Sir Gilbert Blane, and others) were also quoted in proof of the antiseptic and medicinal qualities of vinegar. The author then proceeded to show that acid drinks were not only preventive, but remedial in epidemic disorders of the bowels. Cases were related, in which

not only were exempt from attacks of cholera raging around them who drank long draughts of cider, but a case of cholera was also related, which yielded to the diluted juice of sour apples. The efficacy of the *Mineral Acids*, especially the sulphuric, in diarrhoea, was also advocated by reference to numerous facts and authorities. He also referred to some established facts connected with the spread of epidemic dysentery in the army, showing the efficacy of vegetable acids in that disease.

In conclusion, Mr. Tucker suggested a necessary caution relative to the use of the wretched and unwholesome substitute for vinegar commonly sold in the London shops.

The discussion which followed the reading of the paper, elicited many facts in confirmation of the author's views; and, as to the efficacy of sulphuric acid largely diluted with water, in choleraic diarrhoea, there was not a dissentient voice.

From the *N. Y. Med. Times*.

On Treatment of Rheumatism in New York Hospital By
J. B. CHAPIN, M.D., Resident Physician.

The plan of treatment usually pursued was: If the patient presented himself with unusual excitement of the skin and pulse, to administer a mixture of sulphate of magnesia and tartarized antimony until the skin was relaxed, and the pulse reduced to a more natural standard. The Rochelle salt was then directed in drachm doses, every two or three hours during the day time, till the urine was rendered alkaline, when it was gradually suspended. A lotion of carb. potass. \mathfrak{z} j. with opium \mathfrak{z} ij. to the pint of water, was not attended with disagreeable consequences, with the exception occasionally of some ulceration about the fauces, in no case was its action so severe upon the bowels as to require its entire suspension. The persons attacked were in the full vigor of health, and the character of the disease acute in its form. The frequency of its administration of the remedy was governed very much by the reaction of the urine.

On the admission of the patient, the urine was tested; and, in all cases, was found to be of acid reaction, and the secretion of the skin presented the usual acid odor. The treatment was generally commenced the second or third day after admission, and the urine was rendered of decided alkaline reaction in an average of five days after its commencement; the longest period it resisted the alkaline reaction having been twenty days, and the shortest two. The secretions of the skin have not, I believe, been noticed to alter. In one case, attended with profuse perspiration, which yielded readily to treatment, the colored shirt the patient wore

entirely lost its color; and it was suggested whether the same change did not take place in the perspiration as in the urine. The average amount of the salt administered was from five to seven ounces.

The average date of commencing improvement was seven days after commencement of treatment, coinciding, in the large majority of the cases, with the commencing alkalinity of the urine. The improvement was invariably permanent, and after the urine was rendered alkaline, *no new articulations were affected*, as a general rule.

The average period of convalescence was twelve days after admission, and the whole duration of the disease, including the period previous to admission, was twenty-two days. Of thirty cases treated by Dr. Swett, during April and May, 1853, during which time no uniform course of treatment was pursued, the average duration was five and a half weeks. One of the most gratifying results of the alkaline treatment was the diminished frequency of cardiac complications. Twenty-one of the twenty-five were free from any complication, three were *admitted* with aortic obstruction, and one with regurgitation. Not one patient was attacked with any heart complication during the treatment of the disease. Comparing this result with the practice last year, it was found that four had mitral regurgitation, six aortic complication, and three suffered from pericarditis; thirteen in all, out of thirty.

Effects of Cod-liver Oil on the blood.—A paper was read by the Royal Society:—"On the changes produced in the Blood at the Administration of Cod-liver Oil and Cocoa-nut Oil." By Theophilus Thompson, M. D. F. R. S.—The author has found, that during the administration of cod-liver oil to phthisical patients their blood grew richer in red corpuscles, and he refers to a previous observation of Dr. Franz Simon to the same effect. The use of almond-oil and of olive-oil was not followed by any remedial effect; but cocoa-nut oil results were obtained almost as decided as from the oil of the liver of the cod, and the author believes it may turn out to be a useful substitute. The oil employed was a pure cocoa oliene, obtained by pressure from crude cocoa-nut oil, as expressed in Ceylon and the Malabar coast from the Copperah or dried cocoa-nut kernel, and refined by being treated with an alkali, and then repeatedly washed with distilled water. It burns with a faint blue flame, showing a comparatively small proportion of carbon, and is undrying. The analysis of the blood was conducted by Mr. Dugald Campbell. The whole quantity abstracted

having been weighed, the coagulum was drained on bibulous paper for four or five hours, weighed, and divided into two portions. One portion was weighed and then dried in a water oven to determine the water. The other was macerated in cold water until it became colorless, then moderately dried, and digested with ether and alcohol, to remove fat; and, finally, dried completely, and weighed as fibrin. From the respective weights of the fibrin, and the dry clot, that of the corpuscles was calculated. The following were the results observed in seven different individuals affected with phthisis in different stages of advancement:—

	Red corpuscles.	Fibrin
First stage, before the use	Female, 129.26	4.52
of cod-liver oil, .	Male, 116.53	13.57
First stage, after the use	Female, 136.47	5.00
of cod-liver oil, .	Male, 141.53	4.70
Third stage, after the use	Male, 138.74	2.23
of cod-liver oil .		
Third stage, after the use	Male, 139.95	2.31
of cocoa-nut oil, .	Male, 144.94	4.61

From the Lancet

An Example of the Concurrent Development of Cancer and Tubercle. By SEPTIMUS WM. SIBLEY, Registrar to the Middlesex Hospital.

(Communicated by Mr ARNOTT.)

This was the case of a woman, aged forty-eight, admitted into the Middlesex Hospital, with a sloughing cancerous sore in the left breast; there was a hard tumour on the inner side of the size of an orange, and several small nodules of cancer at its edges. In the course of five days after her admission nearly the whole remaining portion of the tumour sloughed away, leaving a clean looking surface, which immediately began to cicatrize. Subsequently, pulmonary symptoms became developed, profuse expectoration followed, and she sank and died three months after her admission.—On making a section of the structure of the left breast, it was seen to be an extremely dense form of infiltrating scirrhus, traces of breast tissue, such as ducts, being very apparent. In the thorax, large masses of tuberculous lung tissue were observed. Tubercular cavities existed in the apices of both lungs; a part of the lower lobe of the right lung was in a state of green hepatization, and the bronchial tubes were thickened and dilated. In the left pleura were numerous crude tubercles. On examining the dates of this case, positive proof was obtained that a cancerous tumour was increasing in the breast simultaneously with the increase of tuber-

cular disease of the lungs and that for a period of at least six weeks. The author thought that a single instance of the concurrent existence of these diseases was sufficient to destroy the doctrine of the absolute incompatibility of tubercle and cancer with each other. The paper concluded with some appropriate remarks on the constitutional diathesis tending to the concurrent development of these two diseases.

From the London Lancet.

Case of Mollities Ossium, preceded by Degeneration of the Muscles. By THOMAS K. CHAMBERS, Physician to St. Mary's Hospital.

The case was that of a young woman, twenty-six years of age, admitted in St. Mary's Hospital in March, 1853. She had never been able to follow any calling, on account of weak health. The principal features of the case, in the early stage, consisted in defective muscular power, the flesh of the body feeling exceedingly soft and flabby, the calf hanging down flaccid and baggy. During her residence at St. Mary's, the bones of the back and limbs were examined several times, without any deviation from the natural state being discovered. Spontaneous fracture, first of one femur and afterwards of the other, occurred at St. George's Hospital; and subsequently very remarkable changes in the osseous structures took place. Thus, in April, 1853, the right arm became painful to the touch, and paralytic. In May the same misfortune happened to the left upper extremity; in June the pelvic arch gave way; in July the ribs on the right side fell in, and she began to suffer much from dyspnoea and cough; in August the bones of both arms were quite soft. Towards the end of October the distortion of the lower parts of the trunk was so great, that the feces could not naturally be expelled. She died in November. The bones throughout the whole system were found soft and unresisting, and a sharp instrument could be readily passed through them. A section of the tibia was of the color of muscle, and presented to the knife scarcely more resistance than brain, its shape being retained by the aid of the tough periosteum. The microscope exhibited the bone as consisting of large fat vesicles, some containing a white, others a reddish oil. The parts next the periosteum, which felt gritty, presented, when examined under a quarter inch glass, small islands of opaque bone, the bone-corpuscles being indistinct, and the canaliculi not to be discovered. The muscular fibre presented everywhere the characteristics of

granular degeneration. The account concludes by an enumeration of the points of the case most worthy of attention :—

1. The portrait which was afforded at an early stage of the disease—a stage at which it was rarely the subject of observation.

2. The impression produced by it—viz., that the degeneration of the bones was preceded by that of the muscles, and that the degeneration of the two tissues was dependent on the same crisis : and the probability, therefore, was, that such was the history of analogous cases.

3. The fact that the degeneration was least advanced in the external circumference of the bone.

4. The formation of perfect fat vesicles in both bone and muscles.

BOOK NOTICES.

The Science and the Art of Surgery: being a Treatise on Surgical Injuries, Diseases and Operations. By JOHN ERICHSEN, Professor of Surgery in University College, and Surgeon to University College Hospital. Edited by JOHN H. BRINTON, M.D.. Illustrated by three hundred and eleven engravings on wood. Philadelphia: Blanchard and Lea. 1854.

THIS is a new candidate for popular favor. We have only had time to glance over its pages; but sufficient to know that it is really what its title indicates—the Science and Art of Surgery.

In speaking of the treatment of inflammation, our author draws a judicious distinction between the sthenic and asthenic forms, while in the former he recommends venesection, purgatives, diaphoretics, calomel, &c., with the ordinary local adjuvantia, in reference to the latter he holds the following:

“In considering this part of our subject, it is of especial importance to banish the term “*antiphlogistic*,” for the same treatment that would be anti-inflammatory in one form of the disease would certainly favor its progress in another. Here we must be entirely guided in the means that we adopt by the character of the symptoms. If these from the first partake of the asthenic or irritative type, we cannot at any period have recourse to the treatment that has been recommended in sthenic inflammation. If the disease commenced in an active form, the fever progressively assuming a lower and lower character merging into the asthenic and irritative conditions, so must we gradually alter the nature of our general treatment, which is always a delicate procedure, requiring much caution. Though the inflammatory fever may at first assume a sthenic form, if there is reason to believe, from the broken constitution of the patient, or from the congestive or passive character of the local inflammation, that the constitutional symptoms will not long continue of this type, we must be extremely cautious how we lower the patient by active depletion; for however high the fever may at first run, and in these cases

there is often febrile disturbance of a very active character for the first few days, the disease speedily expends its force, and rapidly subsides into a low form. In such cases as these, which are of very common occurrence in London practice, more particularly in hospitals, we should never bleed, but content ourselves with clearing out the bowels, keeping the patient quiet on a moderate or low diet, and administering diaphoretic salines. As the symptoms gradually merge into the typhoid type, the pulse with increasing frequency diminishing in power, the tongue becoming dry and dark, and the other symptoms of asthenia beginning to show themselves, we must begin to give some stimulant in combination with the salines. The carbonate of ammonia, in five or ten grain doses, may be given in an effervescent form, with fifteen grains of the bicarbonate of potass, and a sufficient quantity of citric acid, every third or fourth hour. The nourishment must be increased; and small quantities of wine or alcoholic stimulants may be conjoined with it in proportion as the symptoms of debility become more and more urgent. In effecting this change, we must be careful not to run into the error of over-stimulating our patient; this may be avoided by observing the influence exercised on the pulse and tongue by the change in treatment.

"In many cases it happens that the symptoms so rapidly sink into, or, from the very first, assume so asthenic a character, that the only treatment that holds out a chance of saving the patient's life consists in the early and free administration of stimulants and mild nourishment, such as ammonia, wine, or brandy, with beef-tea and arrow-root; and of these large quantities may be required in the four-and-twenty hours, the patient evincing a tendency to sink whenever their use is interrupted. The brandy and egg mixture of the pharmacopœia, if well made, combining as it does nutriment and stimulus, is the best remedy that can be administered in many cases.

"As the asthenic passes into the irritative form, we may find it necessary to conjoin opiates in repeated doses with the general treatment. In giving these preparations, our object should be to procure sleep, and tranquillize the system, but not to narcotize the patient.

"In these low forms of inflammatory fever, congestive pneumonia, and asthenic bronchitis, usually supervene. In this complication, the following draught may be advantageously given every third or fourth hour:—*R. Tinct. camph. comp. (tinct. opii. camph. U.S.) min. 20, ammonia carbonatis. gr.v., decocti senegæ, ʒiss., with rubifacients, blisters, or dry cupping to the chest. The diarrhœa that not unfrequently occurs must be met with aromatic confection, kino or catechu in chalk mixture; and if the urine cannot be passed, it must be drawn off by the catheter.*"

The same rules are laid down for the treatment of gangrenous inflammation. We have used in this latter, with much success, the *tr. ferri muriatis*, which, as our readers will remember, has been recommended so highly in *erysipelas*. We have given it in doses of from twenty to thirty drops every three or four hours, until the general and local symptoms began to abate. We do not believe this to be a specific; but we have repeatedly seen, under its influence, a small, quick pulse become slow and full, the organic actions, both general and local, stimulated, the line of demarcation between the living and dead tissues rapidly formed, and the progress of the disease at once arrested.

This remedy must, of course, always be administered with a reference rather to the general condition of the patient than to the local disease; but we think that in a large number of cases, especially among hospital patients, it is indicated. Under the head of operations we find the following directions for the preparation of the patient:

"This preparation must not consist in any routine system of purging and starving, which is ill-calculated to support the constitution against the call which will be made upon its powers, but, by adopting our means, according to the condition of the patient. Indeed, in many of the more severe cases of compound fracture and disease of the joints, it is only by the use of a nutritious diet, and by the administration of stimulants, often in large quantities, that the patient can be brought into a condition to bear the shock and consequent depression of the operation. It will often be found necessary to administer from half a pint to a pint of brandy, with perhaps a considerable quantity of wine, together with eggs, beef tea, and other nourishment, for some days before the operation can be undertaken. This is more particularly the case with hospital patients of bad constitution, who have met with serious accidents, attended by much suppuration and irritative fever. In the more chronic cases, the time should be seized for the operation when the secretions are free, the tongue clean, and the action of the skin and kidneys in a healthy state—and above all, the mind should be kept tranquil and hopeful, being allowed to dwell as little as possible upon the impending event."

Professor Erichsen uses chloroform, believing that it diminishes the danger from shock, while it secures to the patient immunity from suffering. Our author's views of the mode of administration,

the points to be attended to, the effects of the anæsthetic, and the conditions in which it is admissible, will be seen from the following extract :

“The *administration of chloroform* is best commenced before the patient leaves his bed. This should never be given but by a person accustomed to its use, and in whose capability the surgeon has full reliance, as nothing embarrasses him more, during the operation, than to have any doubt about the chloroform being properly administered. The following is the way in which chloroform may, I think, most conveniently and safely be administered. On a piece of folded lint, about two inches square, and consisting of three doubles, about 3j of chloroform is poured, and the lint is then held at a distance of about three inches from the nose of the patient, so as to permit the very free admixture of air with the first few inhalations. After a lapse of about half a minute, the lint is brought nearer to the patient's nose, to within a distance of perhaps an inch, being never allowed to touch; at the same time a porous towel is laid over the face of the patient, and the hand of the operator, so as to prevent the escape of the chloroform vapor, but not to interfere with the admission of air. During the whole time it is the duty of the administrator to keep his hand on the pulse, and occasionally to examine the pupils of the patient.

“The principal points to be attended to during the inhalation of this potent agent are, that it should not be given too suddenly, or in too concentrated a form, and that whilst under its influence the patient be not raised up off the couch to table. If the lint is too much saturated with it, and be held too closely applied to the mouth and nostrils, the patient will not be able to get sufficient atmospheric air, and may speedily become asphyxiated, choking violently, struggling to get free, and becoming purple in the face, with a full slow pulse. Whilst under its influence the patient should never be raised up, as has just been stated; for as this agent exercises a powerful sedative action on the heart, sudden and perhaps fatal syncope may ensue, by putting the patient in the erect position. Hence, also, it is dangerous to administer it in those operations that require to be performed whilst the patient is in the erect position. It is well to caution the patient not to take anything to eat for two or three hours before its administration, lest it induce vomiting of the partially digested meal. With due caution, it may be given with perfect safety to individuals of all ages. I have operated on infants less than a month old, as well as octogenarians, under its influence. In administering it to young children, Dr. Snow recommends that it should be diluted

with rectified spirit. The operation should never be commenced until the patient is fully under the influence of chloroform, so that the muscles are perfectly supple and relaxed, as otherwise the semi-conscious struggle of the patient will only tend to embarrass and increase the difficulties of the operator.

"The first influence of chloroform appears to be exercised on the nervous system, the patient becoming excited and talkative; but this passes away speedily, a state of complete insensibility coming on, the muscular system at the same time becoming paralyzed, and the patient consequently being completely deprived of sense and motion. When the chloroform is given slowly and carefully, it enters the blood, and being conveyed by this fluid to the heart and nervous centres, acts directly upon these organs. Its influence upon the heart is well marked, the pulsations becoming less frequent and forcible, and are indeed often so much diminished in power, that the jet of blood from cut arteries is materially lessened in force. The respirations become shallow and feeble in proportion as the sensibility of the nervous system and the energy of the muscular movements are lessened, and the blood becomes dark and venous; in fact, a semi-asphyxial condition sets in. When in this state, the patient is on the very verge of death, and requires the most careful watching on the part of the person who administers the chloroform. His finger should never be off the pulse, or his eyes taken away from the countenance of the patient, as the inhalation of a small additional quantity of this potent agent, the application of the vapor in too concentrated a state, or suddenly raising up the patient, may occasion a fatal syncope from paralysis of the heart.

"In certain diseased conditions of the system, the administration of chloroform is scarcely admissible; this is more particularly the case in affections of the heart and brain. In diseases of the lungs, as in case of phthisis, it may be given with perfect safety; but as it exercises, during the early stages of its administration, a tendency to determination of blood to the head, and in the more advanced stages, a decidedly depressing influence upon the heart's action, we should be careful in administering it in congestive affections of the brain, or in diseased conditions of the heart, more particularly when that organ is fatty, and weak in its action. But, though these states should render us cautious in the employment of chloroform, they do not altogether contra-indicate its use; and when the patient is so irritable that it is evident that he could not bear the shock of an operation without having his sensibility blunted by this invaluable agent, it may be administered, though with great caution. In an old man, with fatty and dilated heart, whom I lately cut for stone, and on whom it would have been impossible to have operated with any chance of success without chloroform, on

account of his extreme irritability, no ill effects resulted from its inhalation.

"When injurious effects have followed the administration of chloroform, they have arisen from two opposite causes, the induction of asphyxia or of syncope; both conditions being well marked by the ordinary signs attending them—the asphyxia having been induced by the vapor being administered in too concentrated a form, without admixture of atmospheric air; the syncope, by the depressing influence of the agent on the heart's action. In the first case the treatment must consist in the establishment of artificial respiration, if necessary through an opening in the trachea, dashing cold water upon the face, and exposing the surface of the body to a cold current of air. When syncope has come on, the transmission of electro-magnetic shocks through the chest, head, and spinal cord, with the establishment of artificial respiration, will be the most effectual means of restoring suspended animation."

The American editor states in this connection that chloroform is not generally employed in this country, preference being given to sulphuric ether. We presume he represents the views and practice of the profession in Philadelphia; but, unless we are very much mistaken, the proposition is not true when applied to *this country*. The editor may possibly be laboring under the mistaken idea that all our surgeons, north and south, east and west, not only think as Philadelphia thinks, but are disposed to sleep as Philadelphia sleeps.

One can hardly restrain a smile at his closing sentence: "The numerous fatal consequences, however, which have attended, and are daily resulting from the employment of chloroform in Europe, have led to the entire abandonment of its use in this country."

Our author devotes only three pages to the subject of ununited fractures. After briefly enumerating the causes of non-union, the different operations resorted to for the purpose of effecting re-union, he sums up with the following conclusions:

"On reviewing the various methods that have been recommended for the re-establishment of union between the separated fragments, it would appear that the excitation of proper inflammatory action, by the introduction of the seton, or by driving in ivory pegs, promises the most satisfactory result. It is by no means necessary to remove the fibrous band that intervenes between the fragments in cases of false joints, for if the proper amount of in-

flammatory action be set up, this either undergoes osseous transformation, or a sufficient quantity of callus is thrown out around it to consolidate the fracture."

It is known to the readers of this journal that Professor Brainard has recently devised a new method for the treatment of ununited fractures. This was made the subject of an essay which received the prize at the recent meeting of the American Medical Association. Having been kindly permitted by the author to see this essay, and become acquainted with his views, we now have a case which we are treating by his method, namely, by perforating the bones with a drill. The case, with the results, will be reported in a future number of the journal.

Just as we are writing, the September number of the *New York Medical Times* has come to hand, in which we find reports of two cases of united fracture, treated in the *New York Hospital*, by Prof. Brainard's method. We copy the article entire :

"The very large number of fractures which are constantly under our care in this hospital—greater by far, I believe, than in any other institution in the country—gives to the subject of non-union of fractures a particular interest and importance to us. In the right management of this misfortune a proper appreciation of the causes which have been operating against the consolidation of the bones seems to be of great importance as a guide to us in our endeavors to bring about the wished-for union. We may explain most of the cases, I think, by reference to one of the three following circumstances :

1. *Want of power* in the system to produce or to perfect the bond of union, as is sometimes seen in exceedingly old, enfeebled patients, or in those debilitated by disease, starvation, &c.

2. *Obstructed power*.—When the vigor and plastic power of the system is complete, but when some local cause interferes with union, as too great separation of fragments, the interposition of muscles between the broken ends, too great inflammation, too much motion during the cure, &c.

3. *Diverted power*, as in those cases where the plastic powers are perfect, and the local conditions not unfavorable, but where, from the presence of some other important process, as gestation or lactation, or from severe injuries of some neighboring parts, the energies of repair are diverted from the fracture, and expended in whole or in part upon these other processes or injuries. The patient before you presents an example of the latter class. He re-

ceived, thirteen months ago, from the fall of a heavy steam boiler, an injury of his arm, which not only broke the bone four inches above the elbow, but tore and lacerated almost the whole length of the fore arm, to the extent which is pretty well indicated by these cicatrices. His injuries of the fore-arm have at last healed, after a year's tedious suppurating, granulating, cicatrizing, and contracting; but, in the meantime, it would seem that nature's attention had been withdrawn entirely from the broken humors; for it remains ununited, and with scarcely a trace of any effort toward consolidation. If my view of this case is correct, you will say why will not nature, now that she has finished the work on the fore-arm, go on and accomplish the union of the arm. She does not, and she will not do it, for this reason, viz., that so much time has elapsed since the injury, that the reparative nîsus has probably ceased for ever. This disposition towards reparative actions, you know, commences with and is excited by the injury done to the part, and if proper conditions are supplied, it shows itself with the certainty of a law of nature. Even if these proper conditions are withheld for a certain time, the tendency to reparation still exists, and, though postponed, will show itself in cases of fractured bones, many weeks and even months after the original injury. This fact is well illustrated in the man in the Cottage C., whose fracures remained ununited for many weeks, on account of his miserable, starved condition before he came to us. As soon, however, as he got plenty of good, nourishing food, and began to feel its influence, union commenced, and proceeded rapidly. But if the necessary conditions are too long withheld, it would seem as if the tendency to repair had become exhausted; no action takes place, though everything seems favorable for it, and this inactive condition continues indefinitely. Now, under these circumstances, which are precisely those in which I consider our patient to be, nothing will be done toward the union of this fracture unless we can re-excite this exhausted reparative condition; and this is the principle upon which the cure of these cases always is, or ought to be founded. First remove the obstacles which have been preventives of union, and then re-excite the reparative nîsus. I need not recount to you the various methods in use to accomplish this purpose. You probably all are aware that the seton, resection, wiring the bones, introducing ivory pegs, &c., are all founded on the principle above mentioned, and are all of them in their proper place eminently valuable surgical resources. Statistical reports show that these methods have been followed by a great and satisfactory degree of success; but, unfortunately, this success has not been attained without danger, and in a certain proportion of the cases where these severe operations have been performed, death has been the result. It is this fact which makes us so solicitous to

devise some procedure in these cases which, while it shall be effectual, shall also be safe. I propose, in this case, to adopt a plan which was first suggested to us by Dr. Brainard, of Chicago, and which consists in boring through the opposed fragments with a medium-sized drill, and thus wounding in several points the surfaces where we wish to excite the new action. These wounds can be made, all of them, through a single little hole in the skin, by sliding the skin along, and passing the drill in various directions. After these holes have been made, the small external wound is closed with adhesive plaster, and easily heals. [The operation was performed, four holes being drilled through both fragments. The bone was so soft that the drill passed with great ease. The arm placed upon a tin splint.]

"June 14th.—I present you with another case of fracture which has now refused to unite, though it is three months since the leg was broken. There seems to be no good reason why this fracture should not unite; and I therefore propose to treat it in the same manner as we treated the last case, by drilling holes through the opposed fragments. [Six perforations were made through the tibia, and the limb placed in a fracture box.]

June 26.—The arm has presented very little sign of increased action; some tenderness existed round the fracture for a few days, but this has all disappeared; and I fear we shall fail here, from having too little, rather than from too much action. The leg, on the contrary, you see, has become inflamed and swollen round the seat of fracture; and, in fact, suppuration has been caused by the operation. Happily, however, this suppuration is subcutaneous, and I have and shall endeavor to keep it so. Instead, therefore, of making a free incision into this abscess, thereby converting the case into a compound fracture, I have made a very small opening, and had the matter gradually evacuated as it collected, morning and evening. Thus far, the plan has succeeded admirably. The abscess is diminishing, is free from pain, and everything promises well. [By the 19th of July the abscess, which continued to be managed in this way, had entirely healed; and on the 29th of July he was discharged, with the leg firmly united. The arm presented no evidence of union on the 1st of July. Erysipelas attacked his arm, the old scars of the fore-arm re-ulcerated, and, as the erysipelas subsided, abscess occurred about the seat of fracture; which determined us, considering the maimed condition of the fore-arm, to amputate the arm above the fracture."

The failure in the case of the arm must evidently be referred to the general condition of the patient.

We have not time to follow our author further. We can only say that the book is a good exponent of the present condition of English surgery; and as such we recommend it to our readers.

For sale by Keen and Lee, Chicago.

J.

EDITORIAL.

Clinical Instruction.

"But in the United States, *hospitals are so few*, comparatively, and conducted in such a manner, that only a *small portion* of medical students can expect to have access to them. Hence, the deficiency must be made up some other way, and the only means for supplying this deficiency must be found in the office of the private preceptor. For the amount of real and useful clinic instruction, derived from clinical lectures and public surgical operations performed in the amphitheatre of our medical colleges, is very small indeed; and also a great portion of that derived from the amphitheatre of the American hospitals is not much better; and what is obtained, is mostly on *chronic* diseases, leaving those of an acute character, with which the country practitioner has most to do, almost wholly unnoticed."

The above paragraph is from an essay on Medical Education, presented to the Medical Association of Southern Central New York. The same ideas were advanced by Dr. Z. Pitcher, of Detroit, in his Report on Medical Education, read to the American Medical Association in May, 1853; and similar representations in reference to *American* clinical instruction, have been so frequently advanced in essays and public addresses, that it may not be amiss to examine the subject briefly. That medical students and teachers in this country still pay too little attention to clinical instruction, we will freely admit. This, however, is not owing so much to the *small number* of hospitals, or the manner in which they are managed, as it is to the want of any adequate appreciation of the importance of this department of medical instruction, on the part of students and the profession generally. For instance, there are permanent and well-filled hospitals in Boston, New York, Philadelphia, Baltimore, Charleston, New Orleans, Cincinnati, Chicago, Buffalo, and several other cities; making a *number* amply sufficient to accommodate every student in the United States who is prepared by previous study to profit by

attending them. Neither is it true that the clinical instruction capable of being given in the hospitals of this country "is mostly on *chronic diseases*, leaving those of an acute character, with which the country practitioners have most to do, almost wholly unnoticed."

On the contrary, by far the larger part of those received into our hospitals are laboring under the most severe forms of fever, inflammation, &c., together with serious surgical injuries and diseases. So far as we have been able to observe, the proportion of *acute* febrile and inflammatory affections in our hospitals is greater than is usually met with in private practice. Hence, if a large proportion of those who annually enter the ranks of our profession, do so without adequate clinical instruction it is not from a deficiency in the *number* of hospitals, or in the kind of disease admitted into them. The true causes must be looked for elsewhere. In the first place, a large proportion, both of students and preceptors, have no adequate idea of the importance of direct and systematic clinical instruction. The preceptors, many of them, having never received such instruction themselves, are not likely to impress its importance very strongly on the minds of their pupils.

Hence, the selection of a medical college by the student or his preceptor is made to depend almost wholly on other considerations. And among these, *pecuniary* considerations are certainly not the least influential. The great mass of medical students in this country possess limited pecuniary resources, and are compelled thereby to limit in a corresponding degree their privileges. But, by some strange want of adaptation of means to ends, or some false idea of professional dignity, the pecuniary expense required for attendance on most of those schools where good hospitals are accessible is so great, especially when compared with the expenses required at a considerable number of other schools where *no hospitals exist*, that it presents a strong barrier in the way of the student, and directly prevents that full and universal recognition of the importance of hospital or bed-side instruction, which is necessary for the welfare of the profession and the community. But, aside from all these considerations, there is, undoubtedly,

throughout the hospitals of our country great defects in the arrangements for clinical teaching. In many the time devoted to the subject is not at all proportionate to its importance. For instance, in Cincinnati, Philadelphia, and other Atlantic cities, where large hospitals exist, special clinical instruction is given only twice per week, when the whole hospital class are expected to attend at the same hour. If they are admitted into the wards directly to the bed-side of the sick, their number is such, that very few of them can personally examine the patients. Consequently, they resort chiefly to the amphitheatre, where they can be seated as in a lecture-room, and view at a distance surgical operations, and *listen* to clinical instruction over such medical cases as can be conveniently moved from the wards into the room. Such clinical instruction, we admit, gives the student more shadow than substance. It is much better calculated to dazzle the eye and satisfy the mind of the inexperienced by its *show*, than to impart true skill in diagnosing and treating diseases. And it is, doubtless, to this kind of clinical instruction that allusion is made by such writers as the one quoted at the beginning of this article.

They do injustice, however, when they represent this as the only kind of clinical instruction given in American hospitals, for we believe there are several well organized institutions, in which the time given to this branch is much more in accordance with its importance. The true object of clinical instruction should be to bring the student directly in contact with the sick so frequently that he may observe all the changes of morbid action and the effects of remedies as exhibited during the whole progress of each individual case; and it should also furnish such opportunities for manual examinations as will thoroughly train the eye, the ear, and the hand in the delicate work of physical diagnosis. We know that the practical accomplishment of these objects, requires much labor on the part of the teacher, and patience on the part of the learner.

It cannot be made a work of *show* and *eloquence*, but must be confined to patient, familiar personal instruction. Of course only a *limited* number can receive such instruction at the same hour, and around the same sick bed. And yet, by proper system and arrangement, all the students who are sufficiently advanced in

medical studies could be amply accommodated in the hospitals of our country. For the last four years the students of Rush Medical College have had access to the wards of the Mercy Hospital, (formerly called the Illinois General Hospital).

The institution contains an ample supply of patients, four-fifths of whom are laboring under acute diseases, embracing all the forms of fever and local inflammations. During the College term the wards are under the charge of the Professors of Surgery and Practical Medicine, each of whom devotes an hour every morning (except Sundays) to clinical instruction in their respective wards. The students who take the hospital ticket are divided into two general classes, one of which visits the hospital each morning. When there, they sub-divide, one half entering the surgical, and the other the medical wards. When the same general class visit the hospital again, the sub-divisions interchange: those who went with the surgical profession before now go with the medical. In this way, each student taking the hospital ticket visits the hospital, and receives clinical instruction every other day, or three times a week.

And yet the number present at one time in the same ward is always so limited that all can come to the bed-side, and are permitted to examine the pulse, the tongue, the countenance, and to individually percuss and auscultate. Not only are they *permitted*, but *required* to do this, and also to practice on the healthy chest directly under the superintendence of the Professor of Practical Medicine, until both the ear and hand of the learner are trained to their appropriate work. By the foregoing systematic arrangements, ninety students received regular clinical instruction in the Mercy Hospital during the last College term. And we must be pardoned if we claim for it the title of '*real and useful clinical instruction*;' something more than a *mere show* over "dazzling surgical operations," and "chronic diseases." D.

Medical Societies.

KNOX CO. MED. SOCIETY July 1st.—The regular annual meeting of the Knox Co. Medical Society was held at Galesburg, and the following officers were chosen for the ensuing year.

Dr. Jason Duncan, President; Dr. S. C. Patterson, Vice President; Dr. E. A. Hamilton, Secretary; Drs. Cooper, Bailly and Spaulding, Censors

Dr. J. W. Spaulding delivered before the society, a very able valedictory upon retiring from the office of presidency for the preceding year.

On motion it was voted that the address of Dr. Spaulding be sent to the Editors of the N. W. Medical and Surgical Journal for publication.

The society then adjourned to meet in Knoxville, on the first Saturday in Oct.

DR. J. DUNCAN, Pres.

DR. E. A. HAMILTON, Sec.

ANNUAL MEETING OF THE STARK CO. MED. SOCIETY, held in Wethersfield, Henry County, Ill., July, 13th 1854.

The President and Vice President being absent, on motion, Dr. Pinny was called to the chair.

Members present. Drs. Tho's. Hall, of Toulon, H. Nance, of Lafayette, A. A. Dunn, of Cambridge, Wm. Chamberlain, of Toulon, E. R. Boardman, of Elmira, G. I. Samper, of Oceola, Millikan, of Wyoming, A. R. Bodley, of Victoria, E. Pinny, G. P. Bancroft, and T. D. Fitch, of Wethersfield.

On motion of Dr. Chamberlain, the minutes of the special meeting, held in Toulon May, 23rd, 1854, were accepted.

Dr. Lamper moved to expunge—lost.

Dr. Lord, of Annawan, was proposed by Dr. Milliken, and unanimously elected a member of this society.

Society then proceeded to the election of officers for the ensuing year, when the following members were elected. President: Dr. Tho's. Hall, Toulon, Stark Co. Ill. Vice President: Dr. E. R. Boardman, of Elmira, Stark Co. Ill. Secretary: Dr. T. D. Fitch, of Wethersfield, Henry Co., Ill.

The President appointed Drs. H. Nance, Wm. Chamberlain and Milliken, Censors.

On motion of Dr. Samper, the charges of unprofessional conduct preferred against Dr. Hall, by Dr's. Boardman and Samper, were taken up.

Dr. Chamberlain moved to lay on the table—lost
The merits of the question were then discussed by most of the members present.

Vote resulted as follows :—

Yeas—Drs. Nance, Bodley, Boardman, Fitch. Nays—Dr's. Hall, Chamberlain, Dunn, Milliken and Bancroft.

Dr. Pinny, President *pro tem.* giving casting vote in favor of Dr. Hall.

Drs. Samper, Nance, Boardman and Bodley withdrew from the society.

On motion of Dr. Chamberlain, the withdrawal of the foregoing members, was recognized.

On motion of Dr. Fitch, a committee of three was appointed to present a fee-bill, for the action of this society at its next regular meeting.

Drs. Fitch, Chamberlain and Pinny were appointed said committee.

On motion, certificates of membership and good moral character were granted to Drs. Lord and Harlan.

The President appointed Dr. R. F. Henry in place of Dr. Nance, Censor.

On motion, society adjourned to meet in Toulon on the 4th Tuesday in October next.

THO'S. HALL, M. D., Pres.

T. D. FITCH, M. D. Sec.

COOK CO. MEDICAL SOCIETY.—The regular annual meeting of this Society was held on Tuesday evening, in the office of DR. PARKER.

A respectable number of members were present, and the meeting was an interesting and profitable one. Dr. De Laskie Miller, of Chicago, read a paper on *cholera infantum*, and the use of Quinine in its treatment. The essay was listened to with much attention, and was followed by a discussion which occupied the remainder of the evening. Dr. Miller was requested to furnish a copy of his paper for publication in the Journal. Hence we shall not attempt to give any detailed account of it. D.